

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING AT THE INTERSECTION OF US 1 AND MD 103 IN HOWARD COUNTY. US 1 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

THIS WORK IS NECESSITATED BY WIDENING ON THE SOUTH-WEST CORNER OF THE INTERSECTION.

INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA SIX-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE US 1 APPROACHES OPERATING CONCURRENTLY AND THE MD 103 APPROACHES OPERATING AS SPLIT PHASES.

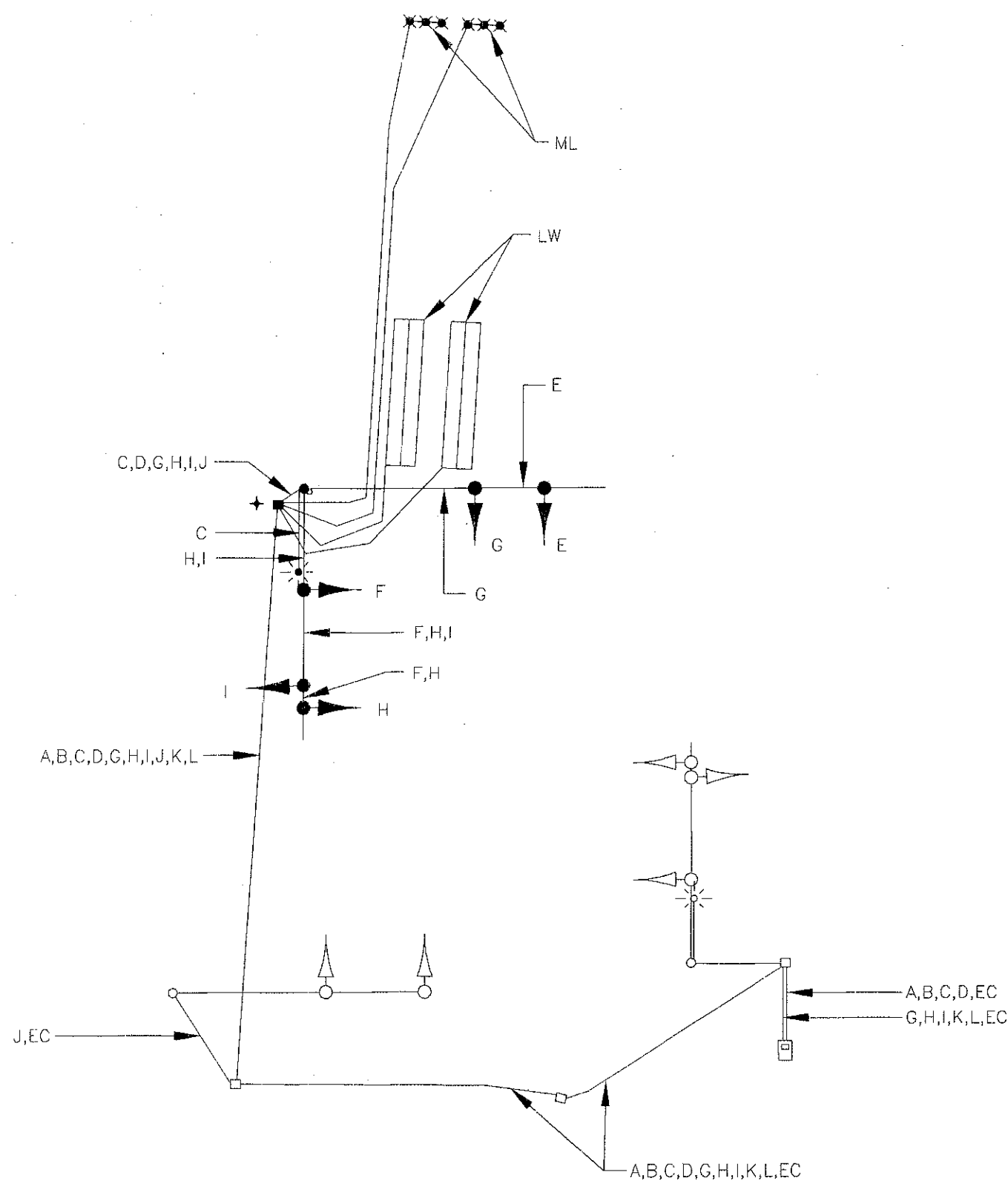
EXCLUSIVE-PERMISSIVE LEFT TURN PHASES ARE PROVIDED FOR NORTHBOUND AND SOUTHBOUND US 1.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS THE SOUTH LEG OF US 1.

CONTROLLER REQUIREMENTS

THE EXISTING FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER HOUSED IN A BASE MOUNTED WILL BE USED.

WIRING DIAGRAM



WIRING KEY

- | | |
|---|--|
| A) 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED) NO. 14 A.W.G. | J) STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.) |
| C) 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.) TRAY CABLE | K) MICRO-LOOP PROBE LEAD-IN |
| D) 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) | ML) MICRO-LOOP PROBE |
| E) 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) | LW) LOOP WIRE (NO. 14 A.W.G.) |
| G) 7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) | EC) EXISTING CABLE |
| | + 3/4 IN. X 10 FT. GROUND ROD |

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	
	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	(R) (Y) (G)	
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	
1 + 5 CHANGE	PHASE 1 + 5 MAY CHANGE TO PHASE 1 + 6, 2 + 5 OR 2 + 6										
PHASE 1 + 6	R	R	R	R	R	R	R	R	R	R	
1 + 6 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 2 + 5	R	R	R	R	R	R	R	R	R	R	
2 + 5 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 2 + 6	R	R	R	R	R	R	R	R	R	R	
2 + 6 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 3	R	R	R	R	R	R	R	R	R	R	
3 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 4	R	R	R	R	R	R	R	R	R	R	
4 CHANGE	R	R	R	R	R	R	R	R	R	R	
PHASE 4 ALT.	R	R	R	R	R	R	R	R	R	R	
PED CLEAR	R	R	R	R	R	R	R	R	R	R	
4 ALT. CHANGE	R	R	R	R	R	R	R	R	R	R	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	

EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	1 C.Y.	TEST PIT EXCAVATION
5010	30 L.F.	24 IN. WHITE THERMOPLASTIC PAVEMENT MARKINGS
5011	4 EACH	THERMOPLASTIC PAVEMENT MARKING LETTER
5012	2 EACH	THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT-THRU-RIGHT)
5012	2 EACH	THERMOPLASTIC PAVEMENT MARKING ARROW (LEFT)
8001	5 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8016	2 EACH	FURNISH AND INSTALL MICRO-LOOP PROBE SET WITH 500 FT. LEAD-IN
8021	510 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8022	60 L.F.	FURNISH AND INSTALL 1 IN. GALVANIZED STEEL CONDUIT FOR DETECTOR SLEEVE
8024	10 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
8025	120 L.F.	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC CONDUIT - SLOTTED
8033	1 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8034	1 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8040	1000 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8041	600 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR ALUMINUM SHIELDED (NO. 14 A.W.G.)
8044	50 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8045	1100 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 7 CONDUCTOR (NO. 14 A.W.G.)
8046	360 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
8049	160 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8056	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8057	1 EACH	FURNISH AND INSTALL LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE -1 EACH - 15 FT. LENGTH
8085	1 EACH	FURNISH AND INSTALL MAST ARM POLE AND TWIN 50 FT/60 FT MAST ARMS
---	2 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, THREE-SECTION (R,Y,G.) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	1 EACH	FURNISH AND INSTALL 12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	1 EACH	FURNISH AND INSTALL 8 / 12 IN., ONE-WAY, FIVE-SECTION (R,Y,YA,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	1 EACH	12 IN., ONE-WAY, FOUR-SECTION (R,Y,G,GA) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
---	69 S.F.	FURNISH AND INSTALL SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH D3-2 STREET NAME SIGN (VARIABLE X 32 IN.) - MAST ARM MOUNT - 1 EACH R10-12 SIGN (36 IN. X 42 IN.) - MAST ARM MOUNT - 1 EACH R3-6L SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT - 1 EACH R3-5R SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT
8042	330 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 14 A.W.G.)
8061	1 EACH	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
---	1 EACH	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON

NOTE: ITEM NUMBERS CORRESPOND TO MSHA AREA WIDE CONTRACT

TRAFFIC CONCEPTS, INC.

Brightview Business Center
8258 Veterans Highway
Suite 19B
Millersville, MD 21108
(410) 987-0427

REVISIONS

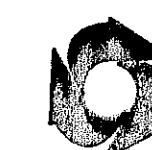
APPROVALS

ASSISTANT DIVISION CHIEF

ASST. DISTRICT ENGINEER, TRAFFIC

CHIEF, TRAFFIC ENG. DESIGN DIV.

DIR., OFFICE OF TRAFFIC & SAFETY



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
GENERAL INFORMATION SHEET
US 1 AND MD 103

DATE: 7-27-98

SCALE: NONE

APPROVED BY:

DRAWN BY: T. ZAYDEL

DESIGNED BY: T. ZAYDEL

CHECKED BY: K. SCHMID

F.A.P. NO.

S.H.A. NO.

COUNTY

HOWARD

PLAN

SHEET NO.:

TS-962DGI

SHEET NO.

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